

Birkholzer *et al.*  
Appl. No.: 09/762,837

### REMARKS

#### ***Assistance***

The Examiner's assistance on November 4, 2003 is noted with appreciation.

#### ***Revocation Status***

The status of the Revocation of Powers of Prior Attorney received by the US Patent Office on February 6, 2003 is requested.

#### ***Claim Objections***

In paragraph 1 of the office action, the Examiner objected to claims 22 and 32 as containing a typographical error. By the above amendment, the typographical error has been corrected. Withdrawal of this objection is requested.

#### ***Claim Rejections***

In paragraphs 2-4, the Examiner rejected claims 13-24 and 27-35 under 35 USC §103 over Burns (US Pat. 5,904,484) in view of Baker (US Pat. 5,486,001). The rejection is traversed.

The present invention is directed to a system which provides movement guidance to a person in the form of visual feedback. The person's image is presented on a screen. Markers 6 are inserted into the image indicating ideal desired body positions which should ideally be taken up by the person (page 9, lines 15-19). The markers are inserted by insertion means 5 which comprises an appropriately designed graphics processor which can be programmed for insertion of the markers (page 10, lines 9-11). Additionally, the insertion means may insert stationary markers 6" for assisting the person in positioning him/herself with respect to a camera 1 (page 10, lines 11-18, page 11, lines 1-12).

A function of the insertion means is the detection, within the video image, of characteristic points, lines or contours of the person shown (page 10, lines 19-24). Based upon this detection, it is possible to identify the size, position, etc. of the person and to correspondingly adapt the insertion of the markers 6. Accordingly, the markers 6 relate to the person him/herself (page 10, lines 23-27). Appropriately placed markers for different

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persons, different close ups of different body parts, and/or different locations can accordingly be accommodated, automatically, by the insertion means (page 10, lines 27-37). An additional feature of the insertion means is the insertion of markers which move with the person by adapting the movement speed of the markers 6 with the movement speed of the person (page 11, lines 13-21). These features are set out in claim 13.

None of the prior art of record, alone or in combination set out the insertion means or its functionality.

The Examiner cites col. 2, line 43 – col. 3, line 65 of Burns as disclosing a portion of the instant insertion means functionality (claim 13, paragraph c), first segment), namely, inserting a marker into an image so as to indicate a predetermined position. The cited passage describes the insertion of a motion template into a video image. The motion template is of an instructor which the person (using the system) is to emulate. The instructor is selected so as to have the same gender, age and body type of the person (col. 3, lines 7-10). The person may be inserted into the video image, live, performing the same movements as the instructor. The persons' image is taken from the same vantage as the instructors so that the two images may be superimposed. Burns' object includes presenting the person with a motion template to follow (col. 3, lines 20-65). The instant invention uses characteristic points, lines, contours or equivalents thereof of the person to produce the instant markers. Burns in contrast sidesteps this level of detail and attempts to manually match the person with an instructor by gender, age and body type. Considerations of the details (points, lines, contours, etc.) of the person's person is not considered in Burns. Accordingly, the instant markers are tailored to the person, while in Burns no such specific tailoring exists.

The Examiner cites col. 5, lines 52-55, col. 7, line 66 – col. 8, line 4, and col. 11, lines 2-4 as disclosing the inserting means detecting the characteristic points, lines, contours or equivalent characteristics of the depicted person or displayed area thereof; automatically adapting the marker to fit the detection; sizing the marker based on the detection; and the insertion means detecting the characteristic points, etc. of the moving person or part. Applicants disagree.

As detailed above, Burns does not detect the characteristic points, lines, contours or equivalent characteristics of the person (or part) depicted on the screen. Col. 5, lines

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52-55 discuss providing visual cues 18 to the person to assist the person in his/her emulation of the instructor. Visual cues are detailed in col. 5, line 64 – col. 6, line 7 as being highlighted or animated portions of the instructor's body at select times made for emphasis. This passage does not teach of the instant insertion means nor its functionality of inserting markers into the image based upon the person's characteristic points, etc. Rather, the Burns highlighting is based upon the instructor's features absent any recognition of the person's (student) characteristic points, etc..

Col. 7, line 66 to col. 8, line 4 discuss using prior art software to scale the size (or magnification) of the instructor so as to be in proportion with the scale or magnification size of the student. In effect, two separate images of separate sources are put into similar magnifications. In contrast, the present invention works from a single source of a same image.

Col. 11, lines 2-4 discuss using marks to assist the computer in generating a three dimensional image of the person and instructor. The marks are used to communicate to the computer how to size and position the person and instructors images. Here too, Burns continues to focus on the two separate source images and does not teach of generating the instant markers based upon the person's characteristic points, etc.

In the rejection, the Examiner acknowledges that Burns does not explicitly disclose the insertion component configured to automatically adapt the movement speed of the marker to the speed of the moving person or displayed area thereof. The Examiner pointed to Burns claim 14 discussing manual speed control and to Baker for the automatic speed control of a moving marker to match a moving person. Synchronizing of images was cited as a basis for the motivation to combine.

Claim 14 modifies the superimposing means of based independent claim 8. The superimposing means superimposes the instructor and persons image. As set out above, Burns does not disclose the instant markings nor instant insertion means for arriving at and/or manipulating the markings. The superimposing means of claim 8 works with two distinct images rather than with the characteristic points, etc. of the person. There is no suggestion within Burns to modify its teachings so as to generate the instant markings based upon the persons characteristic points etc. Rather, Burns teaches of presenting a first image for a person to follow and the superimposing of the first image and a second

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(of the person). Accordingly, any modification of Burns in the direction of the present invention would teach away from Burns.

The Examiner cited Baker as a secondary reference. The Examiner argues that Baker discloses a similar system to Burns wherein the insertion component is configured to automatically adapt to the movement speed of the moving marker and the movement speed of the moving person to match one another (col. 7, lines 44-54). Applicants disagree with the argued combination. Baker is directed to a method wherein initial visual image signals are produced from a person carrying out a certain movement. The person's size, motion and other parameters are then compared with a reference movement of another person's like size, motion and other parameters. Namely, in the cited passage Baker determines how a person's size, motion and other parameters emulate another person's preferably ideal size, motion and other parameters. Baker and Burns discuss golf swings. Baker, like Burns, does not produce the instant markers based upon the person's characteristic points, etc. nor use such markers as a guide to the person. Lacking this teaching, a combination of Baker and Burns would not arrive at the presently claimed invention.

The remaining claims of this rejection depend from claim 13 and are believed allowable at least for the reasons set out above.

Regarding claim 14, Burns does not disclose the instant insertion means.

Regarding claim 15, Burns does not disclose the instant markers and therefore does not teach of manipulating them.

Regarding claims 17-19 and 28, the Examiner makes reference to the same passage in Burns. The passage discloses use of an instructor having a same age and body type as the student along with lens zooming techniques to adjust or scale the student image to the instructor. Per the above, altering the scale of one image to relate to another is not the instant markers nor use thereof.

Regarding claims 20, 22, 23 and 29-35, Burns does not disclose the instant markings. Accordingly, it is beyond the teachings of Burns to adjust or otherwise make use of the instant markings.

Regarding claim 21, the data stored by the present invention is substantially different from the data stored by Burns.

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Regarding claims 24 and 27, the base images used are substantially different. Accordingly manipulation and/or use of same by Burns does not teach the present invention.

For the above reasons, the above discussed claims are not obvious over Burns in view of Baker. Accordingly, reconsideration and withdrawal of this rejection is requested.

Claims 25 and 26 were rejected under 35 USC §103 as being unpatentable over Burns in view of Baker and further in view of Uekane *et al.* (US Pat. 5,559,554). As discussed above, both Burns and Baker do not disclose the instant insertion means nor markers and use thereof. Uekane, was cited for teaching of an integrated insertion component 209 with a monitor and camera (figure 7) and not for the instant insertion means or markings. Accordingly, Uekane also lacks the missing teachings and combination of same with Burns and Baker does not render claims 25 and 26 obvious. Likewise, the above arguments regarding Burns and Baker are repeated herein. Accordingly, reconsideration and withdrawal of this rejection is requested.

### ***Conclusion***

A full and complete response to the outstanding Office Action is believed to have been made. The Examiner is welcome to contact the undersigned for any reason. Consideration of the above and allowance of the application in light thereof is respectfully requested. The above amendments do not contain new matter.


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In the event that the transmittal form is separated from this document and the Patent Office determines that an extension of time and/or other relief is required, Applicants petition for any required relief including extensions of time and authorize the Commissioner to charge the cost of such petitions and/or other fees in connection with the filing of this document to Deposit Account No. 502464; referencing attorney docket number 1998P03666WOUS. However, the Commissioner is not authorized to charge the cost of the issue fee to the Deposit Account.

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Respectfully Submitted,

  
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